

**What is claimed is:**

1. A method for providing a triggering mechanism in an all-IP wireless communication system, comprising the steps of:

probing a plurality of communication paths between a mobile terminal  
and a correspondent node to obtain at least one QoS parameter associated  
with each said communication path;

identifying each said communication path that provides a  
predetermined acceptable level of performance; and

generating a handoff trigger to said communication path that provides  
the highest level of performance to said mobile terminal.

2. The method of claim 1, wherein said at least one QoS parameter is  
selected from a group of QoS parameters consisting of packet delay, packet jitter,  
packet loss and bandwidth.

3. The method of claim 1, further comprising the step of ranking each  
said communication path according to a predicted level of performance.

4. The method of claim 3, wherein said ranking step uses a weighted-  
based ranking.

5. The method of claim 3, wherein said ranking step uses a perception-  
based ranking.

6. The method of claim 1, wherein said correspondent node comprises a  
fixed terminal.

7. The method of claim 1, wherein said correspondent node comprises a  
mobile terminal.

8. The method of claim 1, further comprising the step of considering a cost factor.

9. The method of claim 1, further comprising the step of considering a user preference setting on said mobile terminal.

10. The method of claim 1, further comprising the step of considering load balancing on said all-IP wireless communication system.

11. A method for providing a triggering mechanism in an all-IP wireless communication system, comprising the steps of:

establishing a plurality of end-to-end communication paths between a mobile terminal and a correspondent node;

obtaining at least one QoS parameter for each said end-to-end communication path;

identifying each said end-to-end communication path that satisfies a predetermined acceptable level of performance; and

generating a handoff trigger to said end-to-end communication path that provides the highest QoS to said mobile terminal.

12. The method of claim 11, wherein said at least one QoS parameter is selected from a group of QoS parameters consisting of packet delay, packet jitter, packet loss and bandwidth.

13. The method of claim 11, further comprising the step of ranking each said communication path according to a predicted level of performance.

14. The method of claim 13, wherein said ranking step uses a weighted-based ranking.

15. The method of claim 13, wherein said ranking step uses a perception-based ranking.

5 16. The method of claim 11, wherein said correspondent node comprises a fixed terminal.

17. The method of claim 11, wherein said correspondent node comprises a mobile terminal.

10 18. A method for providing triggering mechanism in an all-IP wireless communication system, comprising the steps of:

providing a mobile terminal connected to a plurality of AP/R pairs;

15 obtaining for each AP/R pair at least one QoS parameter that is defined by an end-to-end communication path between said mobile terminal and a correspondent node;

identifying each said AP/R pair that passes a predefined QoS requirement associated with said QoS parameter;

20 ranking said AP/R pairs according to a predicted level of performance using said at least one QoS parameter; and

generating a handoff trigger directing said mobile terminal to hand off to said AP/R pair providing a highest QoS to said mobile terminal.

25 19. The method of claim 18, wherein said at least one QoS parameter is selected from a group of QoS parameters consisting of packet delay, packet jitter, packet loss and bandwidth.

20. The method of claim 18, wherein said ranking step uses a weighted-based ranking.

21. The method of claim 18, wherein said ranking step uses a perception-based ranking.

5 22. The method of claim 18, wherein said correspondent node comprises a fixed terminal.

23. The method of claim 18, wherein said correspondent node comprises a mobile terminal.

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